

E-Book Program Development Study: Quarterly Report

June 1 – August 31, 2013



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Executive Summary

The E-Book Program Development Study is an ambitious assessment project aimed at gathering essential data to drive the development of policies related to e-book development programs. It aligns with CUL's mission to support the development and delivery of high-quality services that facilitate research, teaching, and learning across campus and within the wider scholarly community. The results will provide a set of recommendations and policies for internal and external stakeholders as they collaborate on the development and implementation of e-book projects and programs.

The objective of the first quarter was to review the e-book landscape at CUL and understand how needs and challenges across campus fit into the larger context of e-book management and collection development within the academic community. To accomplish this objective, the following five tasks were completed:

1. Reviewed the CUL/IS Strategic Plan 2010-2013;
2. Researched and wrote a literature review to examine e-book trends within the academic community and publishing industry;
3. Conducted a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of CUL;
4. Conducted informational interviews with the University Librarian, Associate University Librarians, and Library Directors at CUL to discuss e-book challenges and needs;
5. Compiled data from informational interviews, the literature review, and the SWOT analysis to set objectives for the second quarter of the E-Book Program Development Study.

The results indicate that e-book challenges and needs across campus, and within the academic community, are similar in nature. For instance, there is a need for standardized strategies, policies, and workflows in the areas of selection and acquisition, discovery, access, and preservation. There is also a strong interest in collaborative collection development and how e-books can best be acquired, maintained, and preserved through consortiums. Finally, there is a keen interest in up-and-coming methods of e-book creation and dissemination, including the growing popularity of self-publishing and open access, and how these trends will impact e-book collection development and management practices within the academic community.

In summary, the results of the first quarter provide a structure and context for the E-Book Program Development Study. They suggest how the study can support productivity at CUL in terms of strengthening communication between departments, raising levels of discovery, and increasing accessibility for the user community. They also point to opportunities for leadership within the professional community by identifying ways to strengthen partnerships between academic institutions, vendors, and publishers. Finally, they provide opportunities for innovation by identifying up-and-coming trends in e-book creation and dissemination that may impact current e-book workflows within the academic community.

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Introduction

Since 2010, there has been marked growth in e-book holdings at Columbia University Libraries (CUL). Two years ago, the one-millionth e-book was added to the collection. Last year, we passed the two million mark and e-book expenditures now comprise 25% of the book budget. In response to this growth, CUL is developing a unique strategy and vision for e-book programs and initiatives across campus. It includes the planning and development of the libraries' effort at acquiring e-books and making them available to users.

The E-Book Program Development Study is an ambitious assessment project aimed at gathering essential data to drive the development of policies related to e-book development programs. It aligns with CUL's mission to support the development and delivery of high-quality services that facilitate research, teaching, and learning across campus and within the wider scholarly community. The results will provide a set of recommendations and policies for internal and external stakeholders as they collaborate on the development and implementation of e-book projects and programs.

Research Objectives and Questions

The way that e-books are used for research, teaching, and learning purposes in academic environments is a largely undocumented area. The E-Book Program Development Study at CUL seeks to fill this research gap by collecting quantitative and qualitative data that will document the current e-book landscape. The study will be guided by the following four principles outlined in the CUL/IS Strategic Plan 2010 – 2013:

1. User-focused design;
2. Data-driven decision making;
3. Continuous assessment of results;
4. Flexible and adaptive response to user needs.

(CUL/IS Strategic Plan 2010-2013, p. 8)

The objective at the heart of the study is to develop a strategy and vision for e-book programs. Essentially, the set of strategies that result from study findings will create a bridge between the current landscape and our vision for e-book initiatives on campus. For the next two years, the following two questions will serve as a basis for investigation:

1. What are the issues?
2. Where are we going?

To answer these questions, quantitative and qualitative data will be collected from an in-house examination of needs and challenges including: perpetual access versus subscriptions, the purchase of print versus electronic materials, electronic resource management workflows, MARC and metadata records, collaborative collection development, and preservation. In addition, upcoming e-book trends in the academic community and publishing industry will be examined to locate opportunities for innovation, leadership, and collaboration.

First Quarter: Objectives

The central objective of the first quarter was to review the e-book landscape at CUL and understand how needs and challenges across campus fit into the greater context of e-book management and collection development within the academic community. To accomplish this objective, the following five tasks were completed:

1. Reviewed the CUL/IS Strategic Plan 2010-2013;
2. Researched and wrote a literature review to examine e-book trends within the academic community and publishing industry;
3. Conducted a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of CUL;
4. Met with the University Librarian, Associate University Librarians, and Library Directors at CUL and affiliated libraries to discuss e-book challenges and needs ;
5. Compiled data from informational interviews, literature review, and SWOT analysis to set objectives for the second quarter of the E-Book Program Development Study.

E-Book Program Development Librarian Work Plan	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15
Literature Search																								
Initial Overview (Depts)																								
Review Strategic Plan																								
Data Gathering																								
Quarterly Reviews																								
Internal Review																								
Collection Development Policy Review																								
Iterative Process for E-Book Package Offers																								
Collaborative Collection Development																								
External Review																								
Discoverability (In CLIO, MARC Record quality, etc.)																								
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User Experience																								
Archive/Preservation																								
Standards Review																								
Publisher Review																								
Annual Review																								
Setting Policy																								
Summary and Recommendations																								
Wrap up																								

Table 1. E-Book Program Development Work Plan

First Quarter: Results

Literature Review Findings

The purpose of the literature review is to establish a theoretical and methodological foundation for the E-Book Program Development Study. It also contextualizes the results of the study within the existing tradition of scholarship in the library and publishing professions. Finally, it demonstrates how study results fill established research gaps.

The first notable finding was that an institution's ability to clearly define what is meant by the term "e-book" is linked with the general acceptance of the format by the user community. It also provides a benchmark for user expectations, policy guidelines, and general discussions of e-books as research, teaching, and learning tools (Staiger, 2012).

The second finding was that e-books have different management needs than print monographs or e-journals. The issues surrounding them are more complex, publishers and vendors supply them in different ways, and users access them for different purposes (Morris, 2008). It is essential for libraries to understand the general e-book landscape and how their institution fits into that context to properly inform workflows and collection management practices (Beisler & Kurt, 2012).

The third finding was that collaborative e-book management models will continue to grow in importance, particularly when negotiating costs and licensing agreements, working with vendor generated MARC records, and discussing preservation models (Stachokas, 2012). While many consortiums are composed of academic libraries, they should also look for opportunities to extend membership to publishers and vendors. These added perspectives may create new opportunities for innovation and ultimately, arrive at solutions to communal discovery, access, and preservation challenges (Beisler & Kurt, 2012).

The fourth finding was that a number of external forces in the e-book landscape could have an impact on the way academics create and disseminate information over the coming years. For instance, the rapid growth of self-publishing is likely to provide new options in terms of how libraries acquire e-books. In some cases, libraries have already cut out the middle man and maintain their own e-book servers (Feldman, Russell & Wolven, 2013). Also, the open access movement will promote wider access to information and play a small role in keeping overall costs down for materials supplied by for-profit vendors (Stachokas, 2012).

To view the full results of the literature review, please see the appendix.

SWOT Analysis Results

The objective of the SWOT analysis is to examine the e-book landscape at CUL in order to identify internal and external forces that will help or hinder the implementation of e-book strategies and policies. It is based on information collected from interviews with thirty-six CUL librarians, a reading of the CUL/IS Strategic Plan 2010-2013, and a literature review that examined e-book trends in the academic community and publishing industry.

Strengths:

- CUL is progressive and innovative
- Strong international reputation as a research library and academic institution
- Authority/leadership in the academic community and professional associations
- CUL has the resources and drive to collect deeply (e.g. purchasing back files from major academic publishers)
- Prioritizes users' needs and is driven to provide highly accessible and usable e-book collections
- Strong collaborative relationships with partner institutions and consortiums
- Location in New York provides opportunities to develop relationships with large publishers located in the city
- Faculty have international reputations and are leaders in their respective fields
- Columbia is focused on graduate studies, and students produce high quality research through thesis and dissertation projects

Weaknesses:

- There isn't a standardized definition of the term "e-book" across campus which leads to confusion in terms of expectations and functionality
- There isn't an e-books workflow that specifically addresses their complex management needs and challenges
- Terms of licensing agreements are not in a location that is easily discoverable
- There is not a clear understanding of how/why CUL patrons use e-books for research, teaching, and learning purposes
- A large amount of staff time is spent tracking down content in e-book collections (e.g. broken URLs, items pulled from databases by vendors) instead of evaluating the content
- Not enough staff/time/budget to find solutions to vendor generated metadata problems, e-book workflow issues, etc.

Opportunities:

- Free social media initiatives make it possible to create metadata based on "the wisdom of the crowd" (e.g. crowdsourcing)
- Consortiums and collaborative relationships are viewed as the most effective means to negotiate license agreements, prices, fix MARC records
- Industry trends are moving towards open access and self-publishing
- E-books are gaining a reputation as a new and innovative research and reference tool, not just digital versions of print monographs
- New technologies are being developed to work around DRM issues
- The Portico preservation strategy is viewed as a viable model, but has not been tested in a practical setting

Threats:

- Publishers are anxious to change licensing models because of piracy concerns
- Online book lending initiatives (e.g. Amazon Lending Program) may change how patrons interact with libraries
- The e-book landscape evolves so rapidly that it is difficult to predict what the challenges will be in a year from now
- The e-book market is focused on consumer needs, and reasons regarding how/why e-books are used in academic environments are largely undocumented
- There isn't a national strategy regarding preservation for e-books
- Libraries have no legal rights to preserve e-book content because of clauses in licensing agreements

The SWOT analysis pointed to a number of opportunities and issues for further investigation.

Strength/Opportunity:

- CUL can use its authority, reputation, and leadership to define and brand e-books in a way that standardizes expectations for users and eliminates frustration and confusion because of existing ambiguity.
- Based on the current e-book landscape, collaborative collection development is becoming essential in order to negotiate costs and licenses. CUL can use its authority, reputation, and relationships within the academic community to develop policies and workflows that promote and standardize collaborative collection development.
- CUL can use its professional network to develop collaborative relationships with publishers and vendors. These relationships may lead to opportunities for discussion, observation, or development of new methods for the creation and dissemination of electronic textbooks and scholarly materials.

Weakness/Opportunity:

- Social media environments could provide CUL with opportunities to increase e-book discovery rates through innovative metadata initiatives (e.g. crowdsourcing initiatives).
- New technologies could promote greater accessibility to e-book content by allowing users to work around DRM restrictions and select formats that are compatible with a variety of e-readers. For instance, the program Calibre (<http://calibre-ebook.com>) supports all major e-book formats and converts files so that they are compatible with any device.

Strength/Threat:

- There isn't a national strategy that works to preserve e-book collections. CUL can use the E-book Program Development Study to examine the Portico preservation model and determine if/how it can be applied to e-book collections.
- Within the research community, there is a general lack of understanding about how and why e-books are used for academic purposes. The E-Book Program Development Study will provide quantitative and qualitative data sets, results from focus groups and usability studies, and in depth analysis to fill the existing research gap.

Weakness/Threat:

- The current e-book market caters to consumer needs, not needs of the academic community. This may create challenges in terms of negotiating licenses, obtaining high quality metadata, obtaining legal rights to preserve e-books, etc.
- Amazon is launching its own e-book lending program. How will this initiative (and similar programs that follow) influence relationships between CUL and the user community?
- Libraries do not own the bulk of their e-book collections. If companies like EBSCO and ProQuest cease to exist, what will happen to content housed in these platforms? How

would loss of access affect libraries' capital and long-term reputation in the academic community?

E-Book Management Life Cycle Model

After meeting with thirty-six librarians at CUL and affiliated libraries, it is clear that the general e-book challenges and needs across campus are very similar. The majority expressed a need for strategies and policies in the areas of selection and acquisition, discovery, access, and preservation. There is also a strong interest in how e-books will be acquired, maintained, and preserved through collaborations with partner institutions. Finally, there is a keen interest in up-and-coming methods of e-book creation and dissemination, including the growing popularity of self-publishing and open access, and how these trends will impact e-book collection development and management practices within the academic community.

Based on these findings, the following model is being proposed for the E-Book Program Development Study.

1. Develop a set of recommendations and strategies for an e-book life cycle management workflow at CUL that is designed specifically to account for the unique strengths and challenges presented by the format. The workflow will support efficient communication between departments at CUL and address e-book management needs from selection to disposition.
2. Examine how the e-book life cycle management workflow provides opportunities to build collections in collaboration with partner institutions, vendors, and publishers. Also, consider how the workflow can be adapted to standardize and strengthen collection development and management practices within consortiums.
3. Establish a workflow that facilitates regular evaluation and planning so that strategies can be updated and revised as the e-book landscape evolves. This work will include a regular scan of the external e-book landscape (publishers, technologies, etc.) in order to pinpoint trends that impact the academic community.

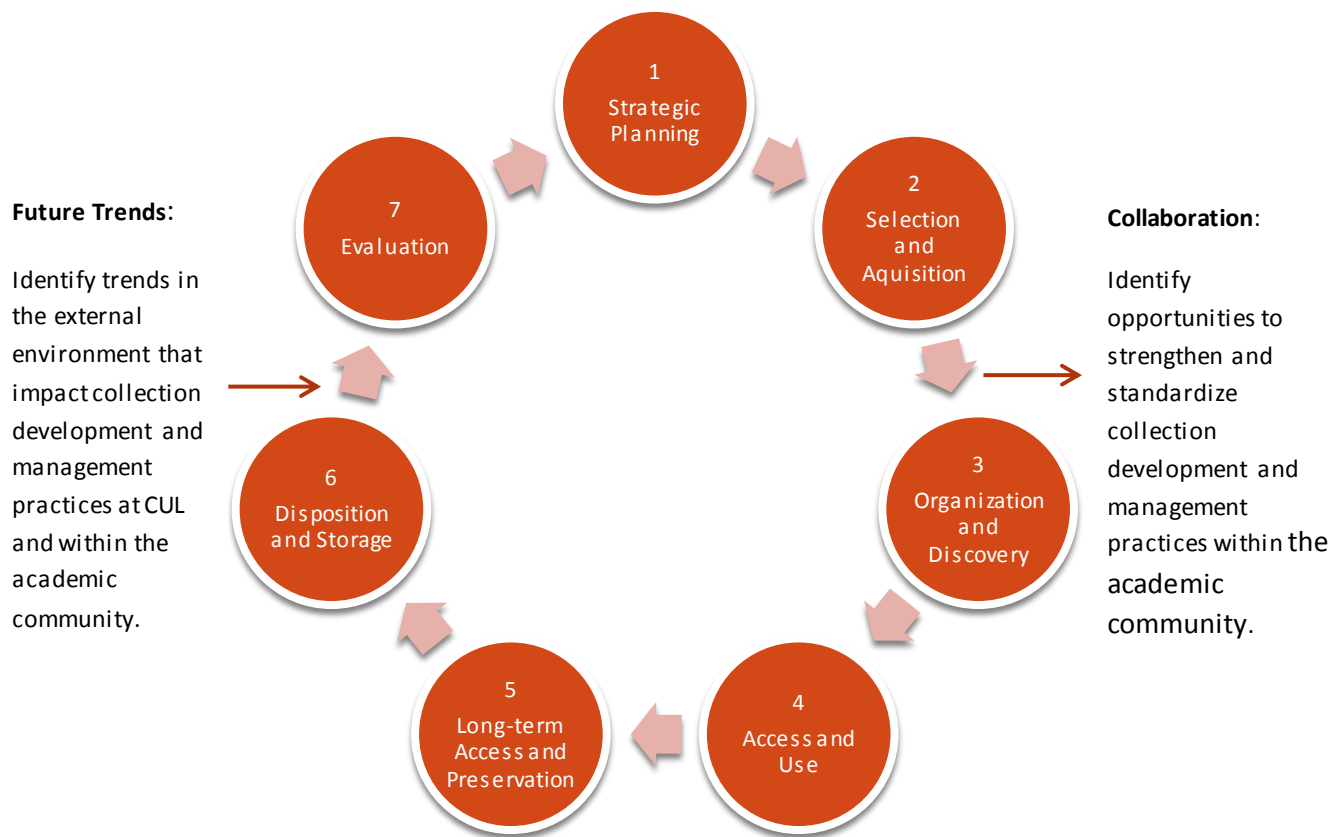


Table 2. Proposed model for an e-book life cycle management workflow at CUL

First Quarter: Additional Achievements and Activities

In June 2013, a poster entitled The Future Landscape of E-Book Programs at Columbia University Libraries was selected for presentation at the CUL/IS Assessment Forum. The poster presentation was uploaded to the Academic Commons and received 165 views by the end of August 2013.

In August 2013, the above mentioned poster presentation was accepted for the Poster Session at the 2013 Charleston Conference. Also, a 30 minute presentation based on the objectives of the study was accepted for presentation at the Library 2.013 Worldwide Virtual Conference hosted by San Jose State University.

Throughout July and August 2013, plans for the E-Book Program Development Study were presented at the Selectors' Group Meeting, the Rare Book and Manuscript Library Department Meeting, the History and Humanities Department Meeting, the Area Studies and Global Resources Department Meeting, and the Academic Resource Fair. These sessions provided opportunities to raise awareness of e-book initiatives at CUL, gather feedback from library staff and students, and answer questions.

Conclusions

In summary, the results of the first quarter provide a structure and context for the E-Book Program Development Study. In addition, they suggest how the study can support productivity at CUL in terms of strengthening communication between departments, increasing levels of discovery, and increasing accessibility for the user community. They also point to opportunities for leadership within the professional community by identifying ways to strengthen partnerships with academic institutions, vendors, and publishers. Finally, they provide opportunities for innovation by identifying upcoming trends in e-book creation and dissemination that may impact current e-book workflows within the academic community.

Next Steps

1. Interview individual members of the Selectors' Group
2. Examine e-book collection statistics to identify usage trends
3. Work with selectors and CERM to examine CUL's e-book packages and observe existing workflows
4. Continue meetings with cataloging units to examine and observe challenges with vendor generated MARC records and free e-book metadata
5. Submit a proposal to IRB in preparation for usability studies and focus groups beginning in January 2014
6. Create an internal wiki, blog, and LinkedIn group for the E-Book Program Development Study as a means to send project updates to internal and external stakeholders and solicit feedback
7. Present a poster entitled The Future Landscape of E-Book Programs at Columbia University Libraries at the 2013 Charleston Conference

References

- Beisler, A., & Kurt, L. (2012). E-book workflow from inquiry to access: Facing the challenges to implementing e-book access at the University of Nevada, Reno. *Collaborative Librarianship*, 4(3), 96-116.
- Columbia University Libraries and Information Services. (2010, January). *Strategic Plan, 2010 - 2013*. Retrieved from https://culis.columbia.edu/content/dam/staffweb/admin/strategicplanning/2010-2013/CULIS_Strategic_Plan_2010-20131.pdf
- Feldman, S., Russell, C., & Wolven, R. (2013). E-book business models for public libraries: A response to publisher-library differences. In D. Bogart (Ed.), *Library and Book Trade Almanac* (pp. 3-18). Medford: Information Today, Inc.
- Staiger, J. (2012). How e-books are used. *Reference & User Services Quarterly*, 51(4), 355-365.
- Stachokas, G. (2012). Looking ahead from now to 2012. In R.O. Weir (Ed.), *Managing Electronic Resources* (pp. 137-148). Chicago: American Library Association.

Appendix: Literature Review

The purpose of this literature review is to establish a theoretical and methodological foundation for the e-book program development assessment. The research examined contextualizes the results of the assessment within the existing tradition of scholarship in the library and publishing professions. It also demonstrates how assessment results fill established research gaps.

Part 1. The Definition of an Electronic Book (E-Book)

In studies conducted by Levine-Clark (2006), Hernon (2007), and Shelburne (2009) findings indicate that there is no clear definition of the term *e-book*, and a small but significant percentage of sample groups were not sure what an e-book was (Staiger, 2012). For instance, Levine-Clark posed several open-ended questions to respondents, and many “confused e-book with e-journal or e-reserve” (Staiger, 2012, p. 356). Hernon also found that students do not distinguish between types of sources, but are only concerned with whether a source is available in print or electronic formats (Hernon et al., 2007). Staiger (2012) stated that this “lack of knowledge has implications for the quality of users’ engagement with the contents of e-books” (p. 356). However, the ability to clearly define what an e-book means at a given institution is linked with the general acceptance of the format by the user community.

The Oxford Companion to the Book provides a definition of the term *e-book* that has been adopted by a number of academic institutions. It defines the tool as a book-length publication in digital form, consisting of text, images, or both, and produced on, published through, and readable on computers or other electronic devices (Gardiner & Musto, 2010, p. 164). Also, it can exist in born digital form without a print equivalent (Gardiner & Musto, 2010).

Part 2. E-Book Life Cycle Management

In the past decade, the development of technologies like e-book readers, mobile devices, and tablets has created a demand for content in a variety of formats. This demand has led to significant growth in the number of e-books purchased by academic libraries. However, e-books are a research, teaching, and learning tool that have different management needs than print monographs or e-journals. Currently, libraries are struggling with “how to manage and provide access to all of these new resources that do not fit neatly into any pre-existing workflow” (Beisler & Kurt, 2012, p. 96).

In many cases, e-book challenges extend beyond libraries’ jurisdictions. For instance, the “multitude of different e-book readers, formats, access platforms, and licenses makes it difficult for libraries to establish set procedures for acquiring and managing e-books” (Beisler & Kurt, 2012, p. 96). Also, there are vast inconsistencies within the e-book publishing industry that place limits on how libraries are able to provide access (Beisler & Kurt, 2012). Due to these complexities, it is essential for librarians to understand the general e-book landscape, and how their institution fits into that context, in order to properly inform workflows and collection management policies at a given institution.

In an article published in *Against the Grain*, Carolyn Morris states that the first step to creating usable workflows is to acknowledge that e-books are vastly different from print counterparts. The issues surrounding them are more complex, publishers and vendors supply them in a different way, and it is unwise to minimize the differences simply to preserve existing workflows (Morris, 2008). As new formats emerge, libraries must adjust policies and procedures to reflect changes (Beisler & Kurt, 2012). For instance, e-book workflows can be informed by print book models but ultimately, “differences in format require a new stream for processing, and this requires the library to create new procedures for handling e-books, from evaluation to activation and most stops in between” (Morris & Sibert, 2011, p. 110).

Developing a new workflow from the ground up is a daunting process and to date, there has been little published about e-book workflows, strategies, or procedures. Based on this research gap, it is difficult to determine what work has taken place at various academic libraries, and whether or not experimentation has been successful. In the absence of an “agreed-upon overarching framework of the processes associated with the management of e-books in academic libraries, it is difficult to compare and contrast the findings from studies or develop clear guidelines for practice” (Vasileiou, Rowley & Hartley, 2012, p. 283).

To address this research gap, the University of Nevada, Reno Libraries created a cross-departmental task force and built an e-book workflow. Their goal was to create an efficient and effective workflow that provided users with seamless service (Beisler & Kurt, 2012). It included the point of inquire, acquisition, access, and disposition. The decision was made to build a workflow from the ground up in order to tackle traditional departmental divisions. Findings indicated that communication between departments was the largest obstacle that affected success rates of e-book workflows. However, they also discovered that developing a workflow became an opportunity for “departments and individuals to work closely together toward a common and worthy goal” (Beisler & Kurt, 2012, p. 109). The success of the project was due to cross-departmental collaboration and the ability to adapt tools on hand to the needs of the e-book workflow. For instance, the task force used SharePoint and the libraries’ electronic resource management ILS module (Innovative Interfaces Inc.’s ERM module) to promote communication at each phase of the workflow (Beisler & Kurt, 2012). The results indicated that workflows are necessary to inform libraries about e-book models that are user-centric and most suited to the needs of a user community (Beisler & Kurt, 2012).

2.1. Selection and Acquisition

The selection of e-books is a complicated process that is driven by institutional requirements for the acquisition of e-books. To learn more about this process, Soules (2009) conducted an eLibrary librarians’ survey examining factors that informed e-book purchases. The findings revealed that integration with other resources, download capability, the ability to support multiple file types, integration with a content management system or the institutional repository, and PDF formats ranked as important in e-book acquisitions (Soules, 2009).

Other researchers have stated that because of the complicated e-book landscape, identifying factors that contribute to informed e-book purchases is not enough. Blummer and Kenton (2012) recommend that libraries select a team of individuals to direct all e-book acquisitions, purchase processes, and initiatives. This model was put into place at the University of Worcester, and their e-book project group is composed of subject librarians, collections specialists, the electronic resources librarian, and library assistants (Blummer & Kenton, 2012).

A similar committee was established at the Indira Ghandi National Open University and is tasked with creating operating guidelines, principles, and potential strategies (Tripathi & Jeevan, 2008). The group also negotiates trial access for teachers and researchers as a means to evaluate prospective titles, makes decisions regarding subscription models, examines the long-term relevance of the content, and evaluates selected vendors (Tripathi & Jeevan, 2008).

At the University of Dublin, a small working group investigated e-book purchases and worked with academic units in the selection process. Main criteria for selection included ease of use, off-site access, multiple simultaneous users, and print and/or download options. In addition, the group invited

prospective vendors to the Library to view demonstrations of platforms and evaluate their overall value to the institution (Blummer & Kenton, 2012).

Based on the results of a literature review of collection management practices from 2005-2012, Blummer and Kenton (2012) developed guidelines for the acquisitions of e-books in academic institutions. Their nine recommendations are as follows:

- Identify e-book acquisition staff;
- Partner with academic departments and especially distance education faculty in selecting titles;
- Provide a trial access to evaluate platforms;
- Consider the value of e-reference titles;
- Highlight currency in e-book packages;
- Focus on platform features such as ease of use and availability of specific features including the index, highlighting text, viewing large images, pasting, printing, and a variety of downloading options;
- Recognize the need for access models that allow simultaneous access with multiple users;
- Create a spreadsheet to differentiate among packages in the evaluation process;
- Understand licensing terms. (p. 76)

2.2 Print and Electronic Formats

The Library Journal's e-book survey reported a 93 percent increase in e-book collections among academic libraries since 2012. The survey also found that libraries anticipate e-book spending to comprise 20 percent of their budgets within five years (Blummer & Kenton, 2012). However, there are divided opinions on the subject of print versus e-book formats. Currently, many academic libraries hold the opinion that e-books and e-textbooks should coexist with print textbooks rather than replace them (Armstrong & Lonsdale, 2009). In many cases, the e-version is still viewed as a supplement to print copies. (Armstrong & Lonsdale, 2009).

Print and electronic texts are two different tools used for different reasons, and MIT suggests that libraries should collect content in both formats whenever possible. However, prior to purchasing an electronic version, there should be confirmation that it contains the same content available in print editions (MIT, 2012). The E-Book Strategic Plan Task Force at Yale University Library also encourages the acquisition of monographs in both print and electronic formats. This is because print books fulfill the need to collect, organize, and preserve knowledge while e-books support research, teaching, and learning initiatives (Yale University Library, 2013, p. 7).

A study by JISC (2012) found that e-books are not currently replacing the demand for print books despite the fact that e-journals have replaced back copies of printed journals (JISC, 2012). Another study conducted by the E-Books Strategic Plan Task Force at Yale University Library (2013) found instances that the adoption of e-books across library systems is uneven. This is often related to the fact that print versions are usually issued several months to a year before electronic versions. In many cases, the library already has the print books and so is reluctant to duplicate the purchase (Yale University Library, 2013). Because of uneven adoption rates and the unique needs of user communities, a survey by Ashcroft (2011) indicated that "49 percent of respondents indicated that usage statistics are the most important driver in e-book purchasing decisions" (Ashcroft, 2011, p. 401).

After conducting a number of focus groups, the JISC National E-books Observatory Project found that in many cases, the printed book is still the preferred format. This preference was linked to the physicality

of printed books, a belief that printed books facilitate greater concentration, a belief that it is easier to scan a printed book, and the expectation that a printed page is easier to annotate, highlight, and make notes from (JISC, 2012). The study concluded that in most cases, “these reasons arise as a result of people thinking that using e-books is about making a choice *not* to use a printed book” (JISC, 2012, p. 44).

However, it is important to note that usage trends and beliefs linked to e-books vary across disciplines. In the sciences, electronic materials are heavily used because of the convenience and speed of locating information. However, users do not often use materials that are more than three years old. In a case like this, librarians can create a customized e-book plan to best suit users’ needs (Schell, 2011). For instance, librarians could create subject based e-book lists updated annually to highlight current content (Schell, 2011).

Across the academic community, and even within the publishing industry, there is the general belief that print formats and e-books are not in an either-or competition. The two formats “already coexist with each answering to different purposes and learning style” (Staiger, 2012, p. 360). However, there is a constant increase in the number of born digital books and journals being published. Since these items do not have a print equivalent, libraries may not always have the option of selecting a format (JISC, 2012).

2.3 Purchases versus Subscription Licenses

When examining the issues of purchase versus subscription, there is no clear cut preference across the library profession. Both are seen to have advantages and disadvantages, and the decision to purchase or subscribe to content often comes down to institutional needs. However, there is widespread agreement that decisions come down to stipulations in licensing agreements such as ensuring there are provisions for multiple access (preferably unlimited) and flexibility (Armstrong & Lonsdale, 2009).

The most important factor to take into account during any contract negotiation is users’ needs. It is important to keep the e-book priorities of students and faculty at the heart of licensing decisions (Blummer & Kenton, 2012). For instance, at the University of Liverpool Library, e-books are purchased directly from the publisher to avoid restrictive content and excessive digital rights management issues (Blummer & Kenton, 2012).

One of the largest issues facing academic libraries is that it is difficult to determine which titles or packages were purchased and which are accessed through subscriptions. This lack of information creates significant challenges when librarians and staff try to determine how collections can be used. There need to be systems that allow for easy consultation and dissemination of licensing terms to ensure compliance and also understand how library resources can be used or shared (Armstrong & Lonsdale, 2009).

2.4 Bundles versus Title-by-Title Purchases

In 2009, High Wire Press conducted a survey of 138 academic libraries to examine preferences between bundle or title-by-title purchases. The findings indicated that while many prefer to select books on a title-by-title basis, the reality is that bundles offer better pricing models, save time in selection, acquisition, and processing, and offer titles that are not sold on an individual basis (Newman, 2009). Other studies have found that the cost-per-use rate for individually-selected titles is seventeen times higher than for titles purchased through aggregate packages (Staiger, 2012).

Although bundles are more attractive in terms of cost, librarians find that it is difficult to determine what titles are available in each package and to acquire appropriate metadata records (Blummer & Kenton, 2012). Because of the complexities involved, some academic institutions believe that e-book

selection should be done by committees rather than individual selectors. For instance, at Yale University Library, e-book purchases are done using a tier system that dictates how decisions are made. In this system, the Director of Collection Development, the Assistant Director of Collection Development, the Collection Steering Committee (CSC), and the eBook Working Group organize the purchase of e-book content into the following three tiers:

1. Tier One: e-book packages that are negotiated and purchased with central funds;
2. Tier Two: e-book packages that are negotiated and coordinated centrally, but are funded through cross unit cost sharing;
3. Tier Three: e-book content that is purchased by individual selectors. (Yale University Library, 2013, p. 8)

This structure eliminates much of the confusion that occurs when individual selectors negotiate or select e-book packages on their own (Yale University Library, 2013). Also, it allows Yale University Library subject specialists to “negotiate directly with publishers for bits and pieces of package deals that could be purchased collectively with less effort and deeper discounting than an individual selector can achieve” (Yale University Library, 2013, p. 8). Essentially, the tier system allows the Library to leverage its collective buying power to “secure advantageous pricing, a more strategic and predictable internal workflow, and the reduction of duplication across electronic platforms” (Yale University Library, 2013, p. 9). Collective purchasing of e-books also allows librarians at Yale to document their approval or disapproval of certain products in the market place (Yale University Library, 2013).

At the end of the day, the acquisition of packages and individual titles should be done in accordance with users’ needs. The MIT Statement of Scholarly E-Book Principles reflects this sentiment and states that “pricing models [should] allow institutions to purchase packages tailored to the needs of their local communities, allow for the selection of individual titles, and that do not require minimum purchases” (MIT, 2012, p. 1).

2.5 Metadata Records

Across the board, academic libraries agree that high-quality catalogue records provide the most effective means of discovery and access. In many cases, e-book metadata records are supplied by vendors. Findings from the JISC National E-books Observatory Project indicate that there are two central concerns from libraries in regards to vendor generated metadata. The first is the poor quality of MARC records, and the second is inappropriate ISBNs (Armstrong & Lonsdale, 2009). A study by Mincic-Obradovic (2009) found the other challenges include missing URLs and not indicating how an e-book differs from its print counterpart (Mincic-Obradovic, 2009).

At Yale University Library, the E-Book Strategic Plan Task Force surveyed Cornell University, Duke University, Princeton University, Stanford University, and the University of Michigan to identify key metadata challenges. Findings indicated that obtaining a perfect MARC record is difficult. There is also differences of opinion regarding whether e-books should have MARC records equivalent in detail to their print counterparts, or whether a poor record is better than no record at all (Yale University Library, 2013).

One solution that has been presented within the academic community is to add a MARC 856 field to an equivalent print record (Blummer & Kenton, 2012). However, due to the growth of e-book holdings at most libraries, it is strongly recommended that a separate record is created for each e-book (Blummer & Kenton, 2012). For example, at the University of Worcester’s Information and Learning Services, each e-book title is catalogued individually to improve user access to their e-book and e-textbook materials

(Blummer & Kenton, 2012). Also, the University of Surrey Library creates separate records for e-books in an effort to recognize the resource as an independent [tool]...with different functionality than print formats (Blummer & Kenton, 2012).

At the J.N. Desmarais Library of Laurentian University, a study was done to assess the importance of metadata records in discovery and access. Findings indicated that creating a metadata record for each e-book increased usage rates, particularly among grad students and faculty (Lamothe, 2013). In some cases, a metadata record doubled usage rates. However, the amount of time required to catalogue e-books presented challenges, and was largely related to the number of e-books purchased at one time, as well as the availability of preexisting MARC records (Lamothe, 2013). For instance, e-books purchased individually could be immediately catalogued, but cataloguing bundled titles could take anywhere from one week to six months (Lamothe, 2013).

A partnership between the University of Illinois at Chicago's University Library and the Center for Library Initiatives (CLI) developed a consortial review process aimed to improve MARC records provided by Ingram for their Springer e-book collection (Marin and Mundle, 2010). The group identified three central challenges including access issues, load issues, and record quality issues (Marin and Mundle, 2010). To remedy these problems, the group used MarcEdit, an "open source MARC batch editing tool that permits manipulation of the data to promote the identification and correction of record errors" (Blummer & Kenton, 2012, p. 80). The results of the study indicated that joint efforts from the consortial review and the vendor remained the most productive way to generate usable bibliographic records (Marin and Mundle, 2010).

Based on the results of a literature review of collection management practices from 2005-2012, Blummer and Kenton (2012) developed nine best practices for cataloging e-books.

1. Catalog records in library's integrated library system to improve findability;
 2. Create separate catalog records for e-book titles, rather than adding MARC 856 field to print record;
 3. Use full MARC format and add URLs for e-book access;
 4. Consider the popularity of vendor-supplied records;
 5. Recognize the need to edit vendor records to ensure that they meet local cataloging standards;
 6. Consider the capability of the ILS for bulk importing, indexing, and deleting;
 7. Identify the tools available for editing vendor e-book records to support collection analysis and searching in next-generation library systems as well as discovery tools;
 8. Encourage vendors adopt the e-monograph guidelines issued by the PCC Provider Neutral E-Monograph Record Task Force for vendor-supplied records;
 9. Weigh the cost of upgrading vendor records rather than creating original records for e-books.
- (Blummer & Kenton, 2012, p. 82)

2.6 Library Catalogue and Resources

In 2009, a focus group report by Christ Armstrong and Ray Lonsdale stated that "there is a bewildering variety of e-content, and proliferation of ways to get to it. Users don't know how to get what they want. Libraries face a big challenge in providing clear access routes to e-content" (Armstrong & Lonsdale, 2009, 28). Their findings indicated that most students locate e-books through the OPAC, so it is useful for e-book collections to be integrated into the catalogue. This way, students can locate books and e-books on a single interface (Armstrong & Lonsdale, 2009). In addition, "adding respective links to the e-books within the catalogue will ensure that, once a specific e-book has been discovered, a learner can

select the link and gain immediate access to the e-book within the collection” (Armstrong & Lonsdale, 2009, p. 39).

Studies by Newman (2009), Nariani (2009), and Staiger (2012) indicate that the most common way users discover e-books is through the library catalog. For instance, Newman observed that the “traditional sources of book discovery continue to be important for e-books as well” (2009, p. 5). Essentially, users discover e-books through the library catalog and Internet searches. Nariani also found that catalogued e-books were used more often than those that had been promoted by email. Staiger reported that “the library catalog was by a wide margin the primary place where every category of respondents came upon e-books. In the case of respondents from the humanities or social sciences, well over 50 percent learned of e-books either from the library catalog or homepage” (2012, p. 356).

Librarians at the J.N. Desmarais Library of Laurentian University conducted a quantitative and systematic study of online e-book usage and discovered that in addition to the library catalogue, students accessed e-book collections from links off the Library’s website (Lamothe, 2013). The findings indicate that “library websites are critical e-book access points, and for the majority of undergrads, the primary e-book discovery tool” (Lamothe, 2013, para. 3).

While the library is an obvious source for increasing students’ awareness of e-book collections, findings from a literature review conducted by Blummer and Kenton (2012) stated that “faculty [are] a valuable but underused source for increasing students’ awareness of e-books in library collections” (p. 88). The ability of faculty and librarians to integrate e-books into the curriculum impact usage rates in a positive way. Armstrong and Lonsdale (2009) also discovered that one of the most significant ways that faculty can promote these resources is by providing links to relevant sections of e-book collections from an instructional platform (Armstrong & Lonsdale, 2009).

Promotion should not stop with linking to e-books from instructional platforms. There also needs to be standardized instruction that teaches students how to use e-book collections. Blummer and Kenton (2012) found that over 65 percent of students who use libraries’ e-books recall learning about them in library instructional sessions (p. 90). Findings from a literature review by Ashcroft (2011) also suggest that librarians play an important role in raising awareness of e-book holdings. In the first place, users “need to know that their library provides e-books, then [they must know] how to find them” (p. 399).

At the end of the day, “awareness is largely dependent on local circumstances, most prominently but not exclusively such as the degree to which e-books have been promoted at a given institution” (Staiger, 2012, p. 356). Libraries should develop innovative and creative strategies to market e-book collections to targeted user groups. For instance, at the University College of Dublin, librarians email academics usage statistics as well as new e-book titles (Blummer and Kenton, 2012). In addition, Ashcroft (2011) discovered that promotional methods include “social networking applications, subject specific bookmarks advertising e-books, putting stickers on hard copy to advertise electronic availability, and placing dummy e-books on the shelf as a prompt” (p. 400).

Based on the results of a literature review, Blummer and Kenton (2012) developed a number of strategies to promote e-books to targeted user groups. Their eight suggestions are as follows:

1. Market e-books on the library’s website through listings with databases, LibGuides, and on subject pages: host an e-book forum; provide a definition of e-book; highlight new purchases and freely available collections;
2. Include e-books in the library’s OPAC and have a limit function to search e-books;

3. Involve faculty in e-book promotional efforts;
4. Support faculty's use of e-books in teaching, especially for distance education;
5. Provide instruction in using e-books, such as navigating platforms accessing features;
6. Send target e-mails to specific user groups;
7. Utilizes social networking tools such as Facebook and blogs;
8. Make e-book marketing ongoing with a formal strategy. (Blummer and Kenton, 2012, p. 91)

2.7 Usage Trends in Academic Environments

Determining how e-books are used for academic purposes is a complex issue. It is not enough to understand who uses these resources and how they are used; librarians must also consider why e-books are or are not used. Unfortunately, the latter has not been widely researched or discussed in the professional community.

Over the past several years, a number of studies were conducted to determine the benefits and challenges users associated with e-book collections. Results from Beisler and Kurt (2012), Ashcroft (2011), Armstrong and Lonsdale (2009), and the ARL SPEC Kit 313 (year) all suggest that the main benefits include twenty-four hour access to materials, remote access, and the ability of multiple users to use one resource at the same time. Again, the challenges listed in all four studies are similar and signify complex problems that are often linked to the policies and practices of publishers and vendors. They include Digital Rights Management (DRM), platform design, and file format compatibility with various e-readers.

In terms of user groups, doctoral students typically exhibit the strongest relationship with e-book usage (Lamothe, 2013). As one graduate student explained, "the advantage of e-books is immediate access to chapters in edited research volumes. Unlike journal articles, these chapters are rarely available as PDFs from publishers or in databases" (Staiger, 2012, p. 359). Within the undergraduate population, e-book usage is low; however, overall faculty demonstrated the weakest relationship with e-book usage (Lamothe, 2013). Staiger (2012) described faculty's usage of e-books as task oriented – they search for quick information or use it to find a print version for extended research (2012).

A literature review by Staiger (2012) compared the results of two dozen studies regarding e-book usage by members of the academic community. Findings suggested that "academic users typically search e-books for discrete bits of information, a behavior summed up by the formula 'use rather than read'" (p. 355). In general, members of the academic community do not immerse themselves in e-books for extended periods of time to examine entire arguments. Instead, they view e-books as "convenient sources from which to extract information for their scholarly endeavors" (p. 357). Essentially, e-books provide a means for power browsing. They allow users to preview a book without leaving their work stations, and then locate the print copy if the information is relevant to their studies (p. 358). A literature review by Ashcroft (2011) uncovered similar trends. Statistics showed that on average, "53.5 percent of students and 58.6 teachers dipped in and out of several chapters, whereas very low percentages read the whole book – 5.5 percent of students and 7.1 percent of teachers" (p. 401).

To understand how e-books are used, the University of Liverpool Library partnered with Springer and conducted a series of online surveys and focus groups. Results indicated that there was an 88 percent increase in the number of e-book chapters downloaded between June 2009 and July 2010 (Bucknell, 2010). The study went on to compare e-book usage with e-journal article usage and found that the use of Springer e-journals increased significantly between 2008 and 2009, and suggests that having access to e-books on the same platform as e-journals does have an inflationary effect on the usage of e-journals

(Bucknell, 2010). The figures also show that the number of unused e-book titles diminished each year, with older titles continuing to attract significant usage (Bucknell, 2010).

It is important to note that evidence suggests academic users expect the same functionality from e-books that they experience with e-journals. For instance, they want to download PDFs and expect that an e-book allows for multiple users simultaneously. When faculty or students cannot access an e-book because the limit on users is reached, they become frustrated and are often unaware of licensing limits (Ashcroft, 2011). Although there are obvious limits to the number of print books a library would purchase, it seems that “because multiple ease of access to the Internet, limits to accessing e-books are not recognized” (Ashcroft, 2011, p. 402).

To help user communities navigate the complex e-book landscape, librarians (particularly those who work in reference departments) should become familiar with a variety of e-readers and tablets (Buckley & Johnson, 2013). In addition, providing clearly written guides on downloading processes and functionality are invaluable to students, faculty, and library staff (Buckley & Johnson, 2013).

2.8 Functionality

As digital technologies continue to provide a wide variety of options in terms of information access, particularly in the commercial market, patrons expect to find e-books in academic libraries that support research, teaching, and learning activities. In general, users expect to view e-books on a variety of hardware platforms including workstations, laptops, dedicated readers, and mobile phones (Ashcroft, 2011). Today, “users want to be able to access the same e-books but at their convenience on a variety of devices” (Ashcroft, 2011, p. 401).

The fact remains that it is difficult for libraries to lend e-books. This is due to the fact that none of the publishers or vendors involved are working together to find solutions (Bradford, 2013). At this time, “the e-reader makers, library lending software developers, and the publishers are all working at odds” (Bradford, 2013, para. 4). One of the major challenges facing libraries is that the e-book market has not reached maturity, and there are “many formats competing for prime time, including Adobe PDF, Microsoft Reader, eReader, Mobipocket Reader, EPUB, Kindle, and iPad” (pcmag.com, n.d., para. 3). Currently, library users prefer e-books in PDF format, but this may change as technology continues to evolve (Newman, 2009). In all likelihood, e-books would have to be “compatible with a gamut of devices, in other words rendered independent of particular platforms, before they would present libraries with a feasible channel for provisioning materials” (Staiger, 2012, p. 363).

Currently, many library users are not confident that e-books provide desired features required for research, teaching, and learning. For instance, navigating between sections or chapters is perceived as awkward when compared with maneuvering through a print book (Staiger, 2012). Also, features such as printing, copying, or saving e-book sections are ranked by users as more important than searchability (Staiger, 2012). Undergraduate and graduate students also look for indexes, a table of contents, and the full text search tool available in e-books (Blummer and Kenton, 2012). Also, the ability to highlight and annotate texts or follow links to other sources were of value (Blummer and Kenton, 2012).

In most cases, “users expect the same kind of liquidity that they have come to largely enjoyed with articles from e-journals: the ability to download them on whatever device they choose and print as much as they want” (Staiger, 2012, 359). When they encounter obstacles in these areas, they are frustrated. The vast majority of these challenges are not inherent to e-books themselves. Rather, they are the result of restrictions imposed by publishers and vendors (Staiger, 2012). This situation leaves libraries between a

rock and a hard place as they address concerns from users without having the ability to remedy the situation.

During the 2008/9 academic year, Penn State University Libraries partnered with Sony Electronics to study the utility of e-books in research library collections. In particular, they investigated “the effect of reading devices on teaching, learning, and reading; the utility of such reading devices for individuals needing adaptive technologies; and how licensed and locally created digital content could be repurposed for use on portable reading devices” (Behler, 2011, p. 89). Results indicated that users want portability, E-Ink grayscale technology, and uni-function devices that do not distract from the process of reading (Behler, 2011). Criticisms of e-books included slow refresh time when turning pages and a lack of features such as annotation and highlighting capabilities (Behler, 2011). Many users also indicated that it is important for them to use content in any way they want or need to (Behler, 2011).

At the University of Nevada, Reno, librarians connected with users by providing resources in requested formats, and also offered users (including library staff) the chance to experiment with different e-readers (Beisler & Kurt, 2012). A cross-departmental team designed an “E-reader Bar” and invited patrons to try a variety of devices loaded with e-book content (Beisler & Kurt, 2012). Feedback indicated that “staff had benefited from having the chance to try different e-book readers and it made sense to give users the same opportunity” (Beisler & Kurt, 2012, p. 109).

At the University of North Carolina (UNC) Libraries, a number of recommendations have been developed to accommodate tablets, e-readers, smartphones and other mobile devices. First, they select e-books in ePub, XHTML, and other XML-based formats over PDF because “the former are reflowable files developed for digital publishing that can adapt their presentation to the output device and therefore typically easily download to and accurately display on a wide range of mobile devices” (University of North Carolina Libraries, 2012, p. 2-3). In contrast, PDF files “are not easily reflowable, do not adapt well to various sized displays and mobile devices, and therefore are difficult if not impossible to view on small screens that come with some e-readers and smartphones” (University of North Carolina Libraries, 2012, p. 2-3). In cases where only PDF files are available, UNC recommends text-based Adobe PDF formats because they allow for “easy highlighting (copy and paste), keyword searching, improved downloading, and better support for disability access” (University of North Carolina Libraries, 2012, p. 2-3).

It is important to note that companies are creating new technologies to combat the current access issues libraries face due to restrictions enforced by publishers and vendors. 3M, the company who invented Cloud E-Book lending systems for smartphones and tablets, has developed its own reader for libraries. It is “designed specifically for libraries to lend out to patrons with its easy system. Book lovers can choose the e-books they’d like to read, then get the 3M Reader from the librarian, scan their barcode, and be done” (Bradford, 2013, para. 11). The only hitch is that most libraries currently use Overdrive and have not adopted 3M’s system (Bradford, 2013).

2.9 Preservation

The introduction of e-book formats to library collections has caused dilemmas in terms of preservation and stewardship. For instance, the National Digital Stewardship Alliance is working to “identify content at risk of loss, develop and adopt digital preservation standards, share tools and services, support innovation of practice and research, and promote national outreach for digital preservation” (Billington, 2013, p. 71). While there are issues including software and hardware obsolescence and storage space, one of the central issues is the fact that libraries do not have the legal rights to preserve e-books. Essentially, licensing agreements provide temporary access to e-book

collections and do not allow libraries to own a copy of each individual file. As Yale University Library stated,

Traditionally, the Library would procure a print book in support of activities of members of the university and then preserve that book for future users. We could do this because we owned the book, owned the device used to store the book (the bookshelf) and employed staff to ensure the maintenance of the book for future use. Now, when the Library procures an electronic book in support of such activity there is no mechanism for the Library to preserve that eBook for future users (Yale University Library, 2013, p. 5-6).

Because libraries rent instead of own e-books, they can be recalled at any time by publishers. Also Digital Rights Management (DRM) restrictions often prevent libraries from downloading or printing copies of e-books for archival purposes (Yale University Library, 2013). Currently, the only way in which libraries could preserve e-books is if “publishers were prepared to sell the Library digital eBook files with which the Library could do whatever it wanted. In the current market, publishers are not prepared to sell digital eBook files with no strings attached” (Yale University Library, 2013, p. 6).

In terms of libraries themselves, even if publishers were prepared to sell e-books, the majority do not have adequate infrastructure to house them. At this time, most do not have a “robust information technology infrastructure (institutional repository) in which to store eBook files, [or] have a plan in place to migrate eBook files (or any other kind of digital files) from the current generation technology platform to the next” (Yale University Library, 2013, p. 6).

In regards to preservation concerns, Cornell University, Duke University, Princeton University, Stanford University, and the University of Michigan face similar challenges. When surveyed by Yale University Library, they stated that preservation is addressed “in their license negotiations with vendors” (Yale University Library, 2013, p. 15). In addition, they rely on third party systems like Portico and LOCKSS, as well as local repositories such as the Stanford Digital Repository (Yale University Library, 2013). The institutions stated that they are comfortable with the lack of e-book preservation in cases where there is a print edition in the collection. However, there are growing concerns surrounding dynamic e-book content that has no print equivalent (Yale University Library, 2013).

In reality, there is no e-book solution that “simultaneously meets both the ‘current use’ and ‘future use’ requirements” (Yale University Library, 2013, p. 7). In some cases, it may make economic sense for libraries to purchase an electronic format without thinking about long-term access (Yale University Library, 2013). In other cases, it may be appropriate to purchase titles regardless of current user demand in the hopes of preserving the content (Yale University Library, 2013).

2.10 Evaluation of Management Practices

In order to properly evaluate a workflow, it is essential to ensure that information is communicated and gathered from all departments and staff involved in the process. Buckley and Johnson (2013) recommend storing all documentation for the workflow in a shared location and revising it as needed. The keys to success include planning, communication, storing backups, and revisiting workflows to identify areas that require adjustment (Buckley & Johnson, 2013).

Also, it is essential to review and fully understand how users access and discover electronic resources. At the end of the day, e-book collections are meant to support research, teaching, and learning activities at academic institutions. The results of a literature review by Staiger (2012) indicated that “libraries,

publishers, and content aggregators should be more responsive to how students gather and use information to complete classroom assignments (p. 361). Having a working understanding of how users interact with e-books provides insight into how existing initiatives meet information needs. At the University of Nevada, Reno, an evaluation of the e-book workflow revealed that there should be a higher focus on discover and user experience (Beisler & Kurt, 2012). In response, “a number of existing staff have been shifted over to a new department called Design and Discovery. This department came from a need to make discovery of resources and the online user experience a priority at the UNR Libraries” (Beisler & Kurt, 2012).

Finally, in order to properly assess usage trends, libraries need accurate and usable statistics from publishers and vendors in order to assess e-book collections. The JISC National E-books Observatory Project found that statistics provided by publishers and aggregators vary in quality. In many cases,

it is difficult for librarians to collect meaningful statistics from collections and want publishers and aggregators to send this data to them. Librarians want more time to reflect on the process of collection management and often have no time to collect meaningful statistics. In addition, qualitative studies should supplement quantitative analysis to provide deeper understanding into the way collections are discovered and used (Armstrong & Lonsdale, 2009 page v).

E-book providers need to adopt “a standard metric for reporting data on searches, viewings, and downloads, so that libraries can have a clearer sense of how the resources in which they are investing their funds are being used to facilitate comparisons among different e-book packages” (Staiger, 2012, p. 361). The review of accurate statistics helps publishers and vendors test assumptions about what librarians and users want and need from e-books (Newman, 2009).

Part 3: Collaborative E-Book Management Models

The current e-book landscape is complex and in a state of constant flux. Libraries face challenges negotiating costs and licensing agreements, working with vendor generated MARC records, and discussing preservation models. In the current environment, many academic libraries form consortiums to pool resources and find solutions to pressing issues.

A study by Stachokas (2012) found that the “greatest focuses on consortia in 2009 were renegotiating licenses for electronic resources and budget management” (p. 144). There is a general acknowledgement in the library community that

sharing e-books through consortial arrangements can be a highly cost-effective way to introduce them to a collection. Since the management of the contract and invoicing are typically handled by the lead faculty in the consortium, the burden of training local staff with new skill sets is reduced. Often, the downloading of MARC records to the OPAC is handled centrally as well, further relieving consortium members of added work. In addition to the obvious benefits of competitive pricing through consortia, group selection of title-by-title e-books can create a diverse and rich collection. (Stachokas, 2012, p. 144)

In the future, consortia will continue to grow in importance because of their ability to set up advantageous terms with vendors, provide training in the area of electronic resource management, and take on professional advocacy roles (Stachokas, 2012). However, libraries should not limit membership to other academic libraries, but should also look for opportunities to include publishers and vendors

(Stachokas, 2012). E-book management is a complex problem and solutions will depend on collaboration from all members of the equation. In many cases, “librarians feel unconsulted and believe that it is necessary for publishers and aggregators to work more closely with them” (Beisler & Kurt, 2012, p. 98). The perspective that librarians, publishers, and vendors bring to the table may create new solutions to communal discovery, access, and preservation challenges.

An example of effective collaborative working relationships is evident in the Triangle Research Library Network Consortium (TRLN), which is composed of Duke University, North Carolina Central University, North Carolina State University, and the University of North Carolina at Chapel Hill. The central mission is to “marshal the financial, human, and information resources of their research libraries through cooperative efforts in order to create a rich and unparalleled knowledge environment that furthers the universities’ teaching, research, and service missions” (Triangle Research Libraries Network, 2013, para. 1). The goal is to move TRLN libraries and partner publishers to a decidedly electronic environment for materials that improve support for instruction and research (Triangle Research Libraries Network, 2013). This goal is achieved by working with “innovative and flexible publishers to expand library collections cooperation from print to e-books within a win-win context” (TRLN, 2013, p. 1).

Part 5: Future Trends

Currently, the e-book landscape does not have universal standards that promote discovery and accessibility. E-book library lending is an alienating process; there needs to be a streamlined process for every device and publishers need to understand the technical side of e-book lending to alleviate anxieties (Bradford, 2013). One of the reasons this is not happening is because publishers are “driven by a fear of piracy, just as the music industry was and the movie/TV industry is now” (Bradford, 2013, para. 24). At BookExpo America 2013, American Library Association President Maureen Sullivan said that the e-book dilemma is a “classic example of disruptive innovation. It causes a lot of misunderstanding, it brings fears to light. When we experience disruptive innovation, it’s much more effective to think not ‘either/or’ but ‘and’” (Bradford, 2013, para. 26).

Greco and Osman (2013) also describe e-books and e-readers as a disruptive technology. While margins are higher on a digital book than a print book, publishers also believe that every e-book purchased is a print book that was not purchased (2013). “While some analysts argue that e-books do not greatly affect print unit sales, our research indicates the opposite. Between 2008 and 2015, [we] project that education textbooks will decline by 69.7 percent” (Greco & Osman, 2013, p. 456).

However, there are others who argue that the availability of e-books in libraries can benefit publishers by adding a free marketing and promotional component. For instance, there is “evidence that during periods of technological, social and economic change, people use libraries more. With many bricks-and-mortar bookstores closing, publishers need new ways to ‘showroom’ their titles” (Feldman, Russell & Wolven, 2013, p. 18). Library readers are also heavy book buyers. One service that libraries could offer is in “connecting readers with authors. Libraries might offer to provide access to a publisher’s entire catalog...as a way of connecting readers with additional offerings which they may buy or request the library to purchase” (Feldman, Russell & Wolven, 2013, p. 18). Also, libraries offer readers advisory, a service that “stimulate interest in books through...recommendations. By expanding this service to the e-realm, libraries will strengthen their role of connecting readers with authors and books they might otherwise miss” (Feldman, Russell & Wolven, 2013, p. 18).

There are other forces acting on the e-book landscape that will have an impact on creation and sales over the coming years. For instance, “the open access movement will not replace for-profit vendors, but it will help to ensure wider access to information and play at least a small role in keeping overall costs down” (Stachokas, 2012, p. 145). The rapid growth of self-publishing is also likely to provide new options in the way that libraries acquire books. As Feldman, Russell, and Wolven (2013) reported,

a small group of libraries have already cut out the middle man...and maintain their own e-book servers. The rapid growth of self-publishing is bound to have some impact on library collections. The perception that self-publishing is merely a vanity press under a different name is quickly eroding. New reader opportunities already are being developed by innovative entrepreneurs. By next year, we may be talking about the demise of the e-book – it having been replaced by some more-advanced technology that savvy readers will come to expect. Reading and technological advances associated with digital reading will move ahead at a breakneck pace. (Feldman, Russell & Wolven, 2013, p. 6)

An example of a revolutionary reading experience was launched in December 2012 by the New York Times. The project is entitled *Snowfall: The Avalanche at Tunnel Creek* and is described as a “beautiful reading experience through the use of a clean layout, interactive maps, inlaid videos and graphics that move as you scroll. The result is an online reading experience like no other” (Gardner, 2012, para. 2). Brantley (2013) stated that through this project, the New York Times has essentially reset the bar for interactive online narratives.

In addition, there are a number of trends on the horizon that may influence how patrons interact with libraries. For instance, last year Amazon launched its Kindle Lending Library, available to those customers who own a Kindle and have an Amazon Prime membership. The program allows Kindle owners to “choose from more than 350,000 books to borrow for free with no due dates, including over 100 current and former New York Times best sellers and all seven Harry Potter books” (Amazon, 2013, para. 1). It is yet to be determined whether or not these developments make libraries more or less attractive to publishers and patrons.

While many believe that print books will not disappear in the coming decades, the growth of digital products will have a profound influence on the market and create a set of winners and losers (Greco & Osman, 2013). For instance, those at an advantage include publishers producing high-profit e-books, authors and agents who share in heightened royalties because their books are only available in digital form, retailers of e-books, and stockholders of publishing firms who own high-impact titles (Greco & Osman, 2013). The individuals at a significant disadvantage in the e-book market include shipping and transportation companies who ship books to distribution warehouses, distributors handling shipments and returns, surety bond companies writing policies for books imported to the United States, and companies in developing nations who print books sent to the United States (Greco & Osman, 2013).

References

- Amazon. (2013). *Kindle owners' lending library*. Retrieved from <http://www.amazon.com/gp/feature.html?ie=UTF8&docId=1000739811>
- Armstrong, C., & Lonsdale, R. (2009, November). *E-book collection management in UK university libraries: Focus groups report*. Information Automation Limited, Final Report. Retrieved from <http://observatory.jiscebooks.org/reports/e-book-collection-management-in-uk-university-libraries-focus-groups-report/>
- Ashcroft, L. (2011). Ebooks in libraries: an overview of the current situation. *Library Management*, 32(6), 398-407.
- Behler, A. (2011). The Penn State University Sony e-book reader project. In S. Polanka (Ed.), *No shelf required: E-books in libraries* (pp. 88-90). Chicago: American Library Association.
- Beisler, A., & Kurt, L. (2012). E-book workflow from inquiry to access: Facing the challenges to implementing e-book access at the University of Nevada, Reno. *Collaborative Librarianship*, 4(3), 96-116.
- Billington, J. (2013). Federal agency and federal library reports. In D. Bogart (Ed.), *Library and book trade almanac* (pp. 55 - 77). Medford: Information Today, Inc.
- Blummer, B., & Kenton, J. (2012). Best practices for integrating e-books in academic libraries: A literature review from 2005 to present. *Collection Management*, 37(2), 65-97.
- Bradford, K. T. (2013, June 15). Paper rules: Why borrowing an e-book from your library is so difficult. *Digital Trends*. Retrieved from <http://www.digitaltrends.com/mobile/e-book-library-lending-broken-difficult/>
- Brantley, P. (2013). Books going digital: Betwixt and between. In D. Bogart (Ed.), *Library and book trade almanac* (pp. 19-31). Medford: Information Today, Inc.
- Buckley, M., & Johnson, M. (2013). The why's and how's of integrating downloadable academic e-books. *Computers in Libraries*, 33(1), 9-32.
- Bucknell, T. (2010). The big-deal approach to acquiring e-books: A usage-based package. *Serials*, 23(2), 126-134.
- Columbia University Libraries and Information Services. (2010, January). *Strategic Plan, 2010 - 2013*. Retrieved from https://culis.columbia.edu/content/dam/staffweb/admin/strategicplanning/2010-2013/CULIS_Strategic_Plan_2010-20131.pdf
- Feldman, S., Russell, C., & Wolven, R. (2013). E-book business models for public libraries: A response to publisher-library differences. In D. Bogart (Ed.), *Library and Book Trade Almanac* (pp. 3-18). Medford: Information Today, Inc.
- Frederiksen, L., Cummings, J., Cummings, L., & Carroll, D. (2011). Ebooks and interlibrary loan: Licensed to fill? *Journal of Interlibrary Loan, Document Delivery & Electronic Reserves*, 21(3), 117-131.
- Gardiner, E., & Musto, R.G. (2010). The electronic book. In M. F. Suarez (Ed.), *The Oxford companion to the book* (pp. 164 – X). Oxford: Oxford University Press.

- Gardiner, E. (2012, December 20). The New York Times pushes the limits of online storytelling. *The Economist Group*. Retrieved from <http://www.economistgroup.com/leanback/lean-back-reading/the-new-york-times-pushes-the-limits-of-online-storytelling/>
- Greco, A., & Osman, E. (2013). The competitive advantage of U.S. book publishers in the international market for books. In D. Bogart (Ed.), *Library and Book Trade Almanac* (pp. 451 – 470). Medford: Information Today, Inc.
- Hernon, P., Hopper, R., Leach, M., Saunders, L., Zhang, J. (2007). E-book use by students: Undergraduates in economics, literature, and nursing. *Journal of Academic Librarianship*, 33(1), 3-13.
- JISC. (2012). *Preparing for effective adoption and use of e-books in education*. Retrieved from <http://blog.observatory.jisc.ac.uk/techwatch-reports/ebooks-in-education/>
- Lamothe, A. (2013). Factors influencing the usage of an electronic book collection: Size of the e-book collection, the student population, and the faculty population. *College & Research Libraries*, 74(1), 39-59.
- Levine-Clark, M. (2007). Electronic books and the humanities: A survey at the University of Denver. *Collection Building*, 26(1), 11.
- Martin, K., & Mundle, K. (2010). Cataloging e-books and vendor records: A case study at the University of Illinois at Chicago. *Library Resources and Technical Services*, 54(4), 227-247.
- Mays, A. (2010, September). Workflows in paradise: E-books, acquisitions, and cataloging. *Against the Grain*, 22(4), 56-59.
- Mincic-Obradovic, K. (2009). Ten years on: E-books at the University of Auckland Library. *Serials*, 22(3), S23-S29.
- MIT. (2012, March 13). Draft Statement of Scholarly E-Book Principles. Report created XXX. Unpublished.
- Morris, C. (2008, September). Buying e-books: Does workflow work? Part I. *Against the Grain*, 20(4), p. 85.
- Morris, C. (2008, December). Buying e-books: Does workflow work? Part II. *Against the Grain*, 20(6), p. 77.
- Morris, C., & Sibert, L. (2011). Acquiring e-books. In S. Polanka (Ed.), *No shelf required* (pp. 95-124). Chicago: American Library Association.
- Nariani, R. (2009). E-books in the sciences: If we buy it will they use it? *Issues in Science and Technology Librarianship*. Retrieved from <http://www.istl.org/09-fall/article3.html>
- Newman, M. (2009). *HighWire Press 2009 Librarian E-book Survey*. Retrieved from <http://highwire.stanford.edu/PR/HighWireEBookSurvey2010.pdf>
- PCMAG.com. (n.d.). *Definition of an e-book*. Retrieved from <http://www.pcmag.com/encyclopedia/term/42214/e-book>
- Sawyer, S.K. (n.d.). Electronic books: Their definition, usage and role in libraries. Retrieved from <http://libres.curtin.edu.au/libres12n2/ebooks.htm>

- Schell, L. (2011). The academic library e-book. In S. Polanka (Ed.), *No shelf required: E-books in libraries* (pp. 75-87). Chicago: American Library Association.
- Shelburne, W. A. (2009). E-book usage in an academic library: User attitudes and behaviors. *Library Collections, Acquisitions, and Technical Services*, 33(2), 59-72.
- Simon, D., & P. Sturges. (2012). Libraries, e-lending and the future of public access to digital content. Paper given at IFLA, November 2012. Unpublished. (Brantley, 2013, p. 29)
- Soules, A. (2009). The shifting landscape of e-books. *New Library World*, 110 (1), 7-21.
- Staiger, J. (2012). How e-books are used. *Reference & User Services Quarterly*, 51(4), 355-365.
- Stachokas, G. (2012). Looking ahead from now to 2012. In R.O. Weir (Ed.), *Managing Electronic Resources* (pp. 137-148). Chicago: American Library Association.
- Triangle Research Libraries Network. (2013). *Home*. Retrieved from <http://www.trln.org/index.htm>
- Tripathi, M., & Jeevan, V. K. J. (2008). E-book subscriptions in a distance education institution: A case of Indira Gandhi National Open University, India. *Serials Review* 34(2). 104-114.
- University of North Carolina Library. (2013, May 17). *TRLN consortial e-books acquisitions guiding principles*. Report created XXX. Unpublished.
- University of North Carolina Library. (2012, November 14). *UNC University Library e-books platform recommendations and e-books collections strategy*. Report created XXX. Unpublished.
- Vasileiou, M., Rowley, J., & Hartley, R. (2012). The e-book management framework: The management of e-books in academic libraries and its challenges. *Library & Information Science Research*, 34(4), 282-291.
- Yale University Library. (2013, March 3). *The eBook Strategic Plan Task Force*. Retrieved from <http://www.library.yale.edu/departments/collection-development/Yale-ebook-task-force-rpt.pdf>